

CLAIMS

What is claimed is:

1. A motor vehicle lighted instrument panel comprising:

an instrument panel having at least one first portion to be illuminated;

5 an optical fiber light cable extending around said at least one first portion, said cable including a cladding layer surrounding the core of the optical fiber cable and at least one predefined aperture with selective application of said cladding layer only surrounding a portion of the length and circumference of said core; and

10 a light source optically connected to said optical fiber light cable so that light is emitted from said aperture to illuminate said at least one first portion of said instrument panel.

2. The motor vehicle instrument panel of claim 1, further

15 comprising the addition of high-refractive index paint to one or a plurality of predetermined areas of said cladding aperture on said optical fiber cable.

3. The motor vehicle instrument panel of claim 2, wherein said
20 high-refractive index paint includes dyes that fluoresce or phosphoresce when excited by optical light from said light source.

4. The motor vehicle instrument panel of claim 1, further comprising a wheel mounting a plurality of colored filters interposed between said light source and said cable to selectively filter the and change the color of

light transmitted to said cable, wherein a means for selecting said color of light emitted through said cladding aperture is included.

5 5. The motor vehicle instrument panel of claim 1, wherein said optical fiber light cable is provided with a plurality of apertures to emit light.

 6. The motor vehicle instrument panel of claim 1, wherein said cladding layer blocks light from emitting from said cable core.

10 7. The motor vehicle instrument panel of claim 1, wherein a plurality of optical cables with predetermined cladding apertures are applied to illuminate said panel.

15 8. A method of manufacturing an optical fiber illuminated instrument panel comprising the steps of:

 providing an instrument panel having a plurality of gages mounted thereto;

 providing an optical fiber;

20 selectively applying at least one layer of cladding around the outer surface of the optical fiber in such a manner to leave at least one predefined aperture on said cable free of said cladding;

 affixing said optical fiber to said instrument panel in the vicinity of said instrument panel;

 providing a light source for illuminating said optical fiber.

9. The method of manufacturing an optical fiber illuminated instrument panel of claim 8, wherein said optical fiber is arranged such that said predetermined aperture faces the area to be illuminated.

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10. The method of manufacturing an optical fiber illuminated instrument panel of claim 8, further comprising the step of applying a masking layer to said optical fiber in areas desired to have a predefined aperture before applying said cladding layer to said optical fiber.

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11. The method of manufacturing an optical fiber illuminated instrument panel of claim 8, further comprising the step of applying high-refractive index paint to said predefined aperture.

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12. The method of manufacturing an optical fiber illuminated instrument panel of claim 11, wherein said high-refractive index paint is mixed with dyes that will fluoresce or phosphoresce when excited by optical light from said light source.

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13. The method of manufacturing an optical fiber illuminated instrument panel of claim 8, further comprising the step of providing a wheel mounting a plurality of colored filters interposed between said light source and said fiber to selectively filter the light transmitted to said fiber, wherein a

means for selecting said color of light emitted through said aperture is provided.

14. The method of manufacturing an optical fiber illuminated instrument panel of claim 8, further comprising the step of providing a plurality of optical fibers with said at least one cladding aperture to illuminate said instrument panel.

15. The method of manufacturing an optical fiber illuminated instrument panel of claim 8, further comprising the step of defining a plurality of said predetermined apertures to said fibers.

16. The method of manufacturing an optical fiber illuminated instrument panel of claim 8, wherein said cladding layer blocks at least a portion of light from being emitted from said cable fiber.

17. An improved motor vehicle having an optical fiber lighted instrument panel having a plurality of gages to be illuminated disposed in said occupant compartment, an optical fiber light cable comprising a core and a light source connected to said optical fiber light cable, wherein the improvement comprises:

selectively applying cladding material to said core around predefined aperture areas to define apertures in said cladding material.

18. The improved motor vehicle of claim 17, wherein the improvement further comprises the application of high-refractive index paint to a plurality of predetermined areas in said cladding aperture.

5 19. The improved motor vehicle of claim 17, wherein the improvement further comprises the addition of wheel mounting a plurality of colored filters interposed between said light source and said cable to selectively filter the light transmitted to said cable, wherein a means for selecting said color of light emitted through said cladding aperture is provided.

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20. The improved motor vehicle of claim 17, wherein the improvement further comprises the placement of the predefined cladding apertures in an orientation such that the emitted light shines on the desired area of said instrument panel.